IOT DOOR LAB

I. Introduction

Biometric systems operate on behavioral and physiological biometric data to identify a person. The behavioral biometric parameters are signature, gait, speech and keystroke, these parameters change with age and environment. However physiological characteristics such as face, fingerprint, palm print and iris remains unchanged through out the life time of a person. The biometric system operates as verification mode or identification mode depending on the requirement of an application. The verification mode validates a person's identity by comparing captured biometric data with ready made template. In this project we are going to work with Arduino Uno and Fingerprint Sensor module and with some mechanical tools to make IOT Door Lab.

II. Motivation behind the project

In Hostel we have to leave room for one or the other reason, and it is practically impossible to lock it every time we leave. To solve this problem fundamentally and to increase the security of our rooms our team decided to work on Finger-Print scanner door.

III. Parts List

Resistor (all ¼-watt, ± 5% Carbon)
1.) 330Ω
2.) 1 KΩ
3.) 10 KΩ
Other Parts
4.)Arduino Uno Board
5.)R305 Fingerprint Sensor module
6.)LCD1 = 16*2 Alphanumeric LCD
7.) 5V USB power supply or 9V DC jack power supply
8.) Servo Motor
9.) Automatic Tower bolt
Wires
Red 10 meter
Blue 10 meter
Green 10 meter
Black wire 20 meter

IV.   **Future Plans**

If our project gets completed in given time we would like to work on improved version of this project. That is we would like to add

1. SMS service whenever some tries to open door.
2. Non-volatile memory so that scanner can save finger scans of those who tries to open the door.
3. Password cum finger scanner door.
4. Like to move from finger to face detection system.